



# The Intelligent Traveler

July 2013

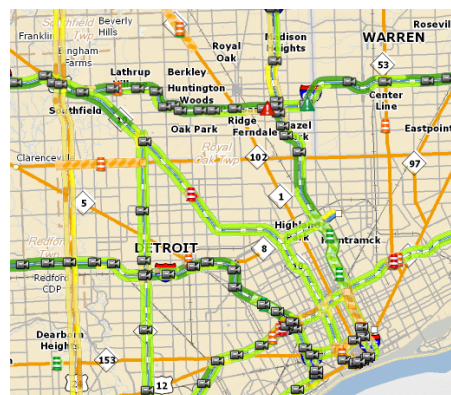
## INTELLIGENT TRANSPORTATION SYSTEMS - ITS



National data documents increasing numbers of people connecting to the internet via a smart phone or other mobile device. Mirroring that information, MDOT's MiDrive mobile site is ever increasing in number of visits. Operational since 2007, MDOT's MiDrive traffic information Web site has been revamped several times, including the introduction of a mobile version in May of 2011.

To access the mobile site on your phone or other mobile device, simply create a shortcut and bookmark using the same address for the desktop version: [www.michigan.gov/drive](http://www.michigan.gov/drive).

From January 1st to March 15th of this year, 34% of the total views of the MiDrive web site has been from a mobile device; compared to last year's 20% at the same time interval. The



### MDOT WEBSITE

[www.michigan.gov/mdot](http://www.michigan.gov/mdot)

### ITS PROGRAM OFFICE

[www.michigan.gov/its](http://www.michigan.gov/its)

### CONNECTED VEHICLES

[www.michigan.gov/cv](http://www.michigan.gov/cv)

### MI DRIVE WEBSITE

[www.michigan.gov/drive](http://www.michigan.gov/drive)

### MDOT ITS PLANNING

[www.mdotitsplanning.com](http://www.mdotitsplanning.com)

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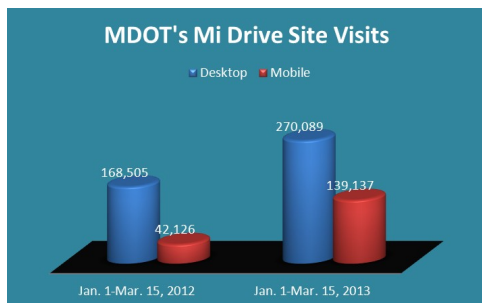
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### MDOT'S ITS MISSION:

*"Develop and sustain a program at MDOT to improve safety, operational performance and integration of the transportation system utilizing Intelligent Transportation System technologies for economic benefit and improved quality of life."*

figure below illustrates the number of visits to the MiDrive web site:

The increased number of visits to the mobile version is due to all of the wonderful



features which allow the Michigan driver and transportation employee to access valuable information on the go. A few of the key features are the following:

- Mapped lane closures on state trunklines (US, I, and M routes) you can search by route or county
- Real-time color-coded views of traffic flow and speeds
- Interactive map that allows users to easily zoom into a specific location
- Metro Detroit and Grand Rapids traffic camera views
- Road camera views from the Upper Peninsula
- Current incidents on Detroit and Grand Rapids freeways
- Messages on dynamic message signs (DMS) across the state
- Corridor views for 11 busy corridors, including I-94 and I-96
- Locations of rest areas, roadside parks, carpool lots, passenger airports and public airports

- Weather information from the National Weather Service

MiDrive allows the Michigan driver or transportation employee to avoid construction zones, easily locate a rest area, be warned of hazardous weather on the roads, and observe traffic through one of the many traffic cameras directly from the easy to use MiDrive app on their mobile device.

The MiDrive site is maintained by MDOT; the Department of Technology, Management and Budget; the state's Center for Shared Solutions & Technology Partnerships; and the ITS program office within the MDOT Division of Operations. The mobile version of MiDrive was funded with federal seat belt funding from the National Highway Traffic Safety Administration.

## Metro Region's Integrated Corridor Management Projects

By: Julie Schaffer Metro Region Transportation Engineer

One of the primary goals and objectives of the Executive Management for the State of Michigan is to continue building on partnerships with our local agencies to maximize resources and provide exemplary customer service to the motoring public.

The Metro Region has identified that implementation of Integrated Corridor Management (ICM) concepts is one way to assist in meeting this goal. The principal aim of an ICM plan is to divert traffic off the freeway and onto surface (local) streets using various technologies including, but not limited to, traffic signal timings, CCTV cameras, detection, static and dynamic trailblazing signs to manage the influx of traffic and attempt to reduce the queues as a result of the incident.

The concept to initiate these pilot projects arose in 2011 when Macomb County ap-

proached the department requesting to work together to complete a design that would allow traffic along I-696 to be diverted onto the surface streets in the event of a high impact incident. It was at this time that the offer was also extended to Oakland and Wayne County to explore the possibility of diverting I-75 traffic in predefined areas.

An ICM study and concept had been completed for I-75 in Oakland County in 2008; however, up to this point nothing had been pursued for Macomb and Wayne. To meet FHWA requirements, consultants were brought on board to evaluate and provide recommendations for all three counties on detour routes and technologies that would be required. The finalized concepts are anticipated to be completed by July 2013. In parallel, we are in the process of hiring consultants to prepare design documents for these concepts that

can be let for construction in 2014 and 2015.



In working through the processes we continue to identify lessons learned – such as the need for interagency agreements to cover maintenance items, data control concerns, and software updates. The anticipated outcome is that the projects prove to provide a cost and time savings to the motoring public and offer a solid groundwork to build future implementations from in the years to come.





## Forecasting for a More Efficiently Operating Tomorrow

By: Elise Kapphahn, P.E. ITS Engineer

Within the next few months the State of Michigan will double its RWIS capacity with an additional 16 Environmental Sensor Stations (ESS) in Superior Region, 11 ESS in the North Region, and 4 partial ESS in the University Region. By the end of this fiscal year our device totals will exceed 53 full and 10 partial ESS. As our system expands and more data is collected we are more easily able to determine an accurate pavement forecast.

The contract responsible for the maintenance and operation of this system is not your typical contract. MDOT's ESS Services contract is unique in the fact that it focuses on all aspects of the system, i.e. the maintenance of the ESS devices, the collection and housing of the data acquired from those devices, and the development of an accurate pavement forecast from the output data. The current contract is with Schneider Electric, formerly known as Telvent, and the resulting forecasting tool is WeatherSentry.

Currently the forecast has primarily been used to improve winter roadway mainte-

nance in the Superior and North Region however there is currently a project under way to determine additional uses for the data, along with an evaluation of the current system and the development a future all encompassing deployment strategy.

Many of you may already utilize a generic forecasting tool and while these are a definite tool in the tool belt, this forecasting provides a key piece of information that is lacking from the atmospheric forecast of the general weather stations, pavement specific forecasting data. ESS provide pavement as well as atmospheric data and forecasting at a preselected location

As Michigan's RWIS continues to expand southward, every region will feel the effect that this additional information will have on their ability to monitor roadway performance, more accurately schedule maintenance staff, reduce use of routine patrols, provide improved information to first responders, and eventually, with integration into ATMS, provide better weather related information to the public.

## Upcoming Events

SUN-WED  
4-7

AUG

**ITE 2013 Annual Meeting and Exhibit**  
Sheraton Boston and Hynes Convention Center  
900 Boylston Street  
Boston, MA 02115

SUN-WED  
25-28

AUG

**National Rural ITS Conference**  
River's Edge Convention Center 10 Fourth Avenue South  
St. Cloud, MN 56301

MON-TUES  
9-10

SEPT

**4th Summit on the Future of the Connected Vehicle**  
Suburban Collection Showcase  
46100 Grand River Avenue  
Novi, MI 48374

WED-SAT  
9-12

OCT

**2013 ASCE Annual Civil Engineering Conference**  
Charlotte Convention Center  
501 S. College St.  
Charlotte, NC 28202

\*If you have an event or an article that you would like included in future editions of *The Intelligent Traveler*, please contact the editorial staff.



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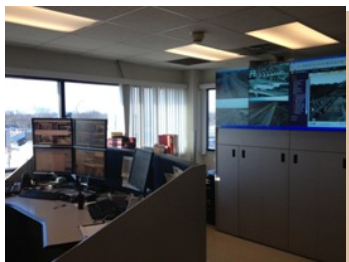
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### Blue Water Bridge TOC



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